



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2021-0350; Project Identifier MCAI-2020-01633-T; Amendment 39-21746; AD 2021-20-08]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Airbus SAS Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for all Airbus SAS Model A318, A319, A320, A321, A330-200, A330-200 Freighter, A330-300, A330-800, A330-900, A340-200, A340-300, A340-500, A340-600, and A380-800 series airplanes. This AD was prompted by a report that repetitive disconnection and reconnection of certain batteries during airplane parking or storage could lead to a reduction in capacity of those batteries. This AD requires replacing certain nickel-cadmium (Ni-Cd) batteries with serviceable Ni-Cd batteries, or maintaining the electrical storage capacity of those Ni-Cd batteries during airplane storage or parking, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For EASA material incorporated by reference (IBR) in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); Internet [www.easa.europa.eu](http://www.easa.europa.eu). You may find this IBR material on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0350.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0350; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Dan Rodina, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3225; email [dan.rodina@faa.gov](mailto:dan.rodina@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Background**

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2020-0274, dated December 10, 2020 (EASA AD 2020-0274) (also referred to as the MCAI), to correct an unsafe condition for all:

- Airbus SAS Model A318-111, -112, -121, and -122 airplanes;

- Airbus SAS Model A319-111, -112, -113, -114, -115, -131, -132, -133, -151N, -153N, and -171N airplanes;
- Airbus SAS Model A320-211, -212, -214, -215, -216, -231, -232, -233, -251N, -252N, -253N, -271N, -272N, and -273N airplanes;
- Airbus SAS Model A321-111, -112, -131, -211, -212, -213, -231, -232, -251N, -251NX, -252N, -252NX, -253N, -253NX, -271N, -271NX, -272N, and -272NX airplanes;
- Airbus SAS Model A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, -343, -743L, -841, and -941 airplanes;
- Airbus SAS Model A340-211, -212, -213, -311, -312, -313, -541, -542, -642, and -643 airplanes; and
- Airbus SAS Model A380-841, -842, and -861 airplanes.

Model A320-215, A330-743L, A340-542, and A340-643 airplanes are not certificated by the FAA and are not included on the U.S. type certificate data sheet; this AD therefore does not include those airplanes in the applicability.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Airbus SAS Model A318, A319, A320, A321, A330-200, A330-200 Freighter, A330-300, A330-800, A330-900, A340-200, A340-300, A340-500, A340-600, and A380-800 series airplanes.

The NPRM published in the *Federal Register* on May 11, 2021 (86 FR 25810). The NPRM was prompted by a report that repetitive disconnection and reconnection of certain Ni-Cd batteries during airplane parking or storage could lead to a reduction in capacity of those batteries. The NPRM proposed to require replacing certain Ni-Cd batteries with serviceable Ni-Cd batteries, or maintaining the electrical storage capacity of those Ni-Cd batteries during airplane storage or parking, as specified in EASA 2020-0274.

The FAA is issuing this AD to address reduced capacity of certain Ni-Cd batteries, which could lead to reduced battery endurance performance and possibly result in failure to supply the minimum essential electrical power during abnormal or emergency conditions. See the MCAI for additional background information.

### **Discussion of Final Airworthiness Directive**

#### **Comments**

The FAA received comments from the Air Line Pilots Association, International (ALPA) who supported the NPRM without change.

The FAA received additional comments from one commenter, Delta Air Lines. The following presents the comments received on the NPRM and the FAA's response to each comment.

#### **Request for Clarification on the Method of Compliance**

Delta Air Lines stated that it included the procedures for on-wing preservation of the batteries specified in the service information into its maintenance program work cards. Paragraph 5.2 of the service information referenced in EASA AD 2020-0274 describes the on-wing preservation procedure and the procedures are detailed in Appendix 2 of the referenced service information. Delta Air Lines noted that the procedure was not directly marked as Required for Compliance (RC) in either paragraph 5.2 or Appendix 2, but is referenced in another paragraph marked as "RC." Delta Air Lines asked that the AD clarify the method of compliance with the preservation procedures, specifically, if incorporation of the procedures into routine maintenance program work cards is acceptable for AD compliance.

The FAA agrees that the incorporation of the procedures into routine maintenance program work cards does meet the intent of the AD and is, therefore, an acceptable means of compliance. The FAA has not changed this AD as a result of this comment.

## Conclusion

The FAA reviewed the relevant data, considered the comments received, and determined that air safety and the public interest requires adopting this AD as proposed. Except for minor editorial changes, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products.

## Related Service Information Under 1 CFR Part 51

EASA AD 2020-0274 specifies procedures for replacing certain affected Ni-Cd batteries with serviceable Ni-Cd batteries, or maintaining the electrical storage capacity of those Ni-Cd batteries during airplane storage or parking. This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

## Costs of Compliance

The FAA estimates that this AD affects 1,814 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

### Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
5 work-hours X \$85 per hour = \$425	\$0	\$425	\$770,950

## Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress

charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**(a) Effective Date**

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all Airbus SAS airplanes identified in paragraphs (c)(1) through (7) of this AD, certificated in any category.

(1) Model A318-111, -112, -121, and -122 airplanes.

(2) Model A319-111, -112, -113, -114, -115, -131, -132, -133, -151N, -153N, and -171N airplanes.

(3) Model A320-211, -212, -214, -216, -231, -232, -233, -251N, -252N, -253N, -271N, -272N, and -273N airplanes.

(4) Model A321-111, -112, -131, -211, -212, -213, -231, -232, -251N, -251NX, -252N, -252NX, -253N, -253NX, -271N, -271NX, -272N, and -272NX airplanes.

(5) Model A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, -343, -841, and -941 airplanes.

(6) Model A340-211, -212, -213, -311, -312, -313, -541, and -642 airplanes.

(7) Model A380-841, -842, and -861 airplanes.

**(d) Subject**

Air Transport Association (ATA) of America Code 24, Electrical Power.

**(e) Reason**

This AD was prompted by a report that repetitive disconnection and reconnection of certain nickel-cadmium (Ni-Cd) batteries during airplane parking or storage could lead

to a reduction in capacity of those batteries. The FAA is issuing this AD to address reduced capacity of certain Ni-Cd batteries, which could lead to reduced battery endurance performance and possibly result in failure to supply the minimum essential electrical power during abnormal or emergency conditions.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Requirements**

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2020-0274, dated December 10, 2020 (EASA AD 2020-0274).

**(h) Exceptions to EASA AD 2020-0274**

(1) Where EASA AD 2020-0274 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where EASA AD 2020-0274 defines a “reconnection cycle” as “repeated disconnection and connection of a battery . . .,” this AD defines it as “one instance of disconnection and connection of a battery. . . .”

(3) The “Remarks” section of EASA AD 2020-0274 does not apply to this AD.

**(i) No Reporting Requirement**

Although the service information referenced in EASA AD 2020-0274 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

**(j) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, Large Aircraft Section, International Validation Branch, FAA, has the authority to approve AMOCs for



this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the Large Aircraft Section, International Validation Branch, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, Large Aircraft Section, International Validation Branch, FAA; or EASA; or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC):* Except as required by paragraph (j)(2) of this AD, if any service information referenced in EASA AD 2020-0274 that contains paragraphs that are labeled as RC, the instructions in RC paragraphs, including subparagraphs under an RC paragraph, must be done to comply with this AD; any paragraphs, including subparagraphs under those paragraphs, that are not identified as RC are recommended. The instructions in paragraphs, including subparagraphs under those paragraphs, not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the instructions identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to instructions identified as RC require approval of an AMOC.

**(k) Related Information**

For more information about this AD, contact Dan Rodina, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3225; email [dan.rodina@faa.gov](mailto:dan.rodina@faa.gov).

**(l) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2020-0274, dated December 10, 2020.

(ii) [Reserved]

(3) For EASA AD 2020-0274, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); Internet [www.easa.europa.eu](http://www.easa.europa.eu). You may find this EASA AD on the EASA website at <https://ad.easa.europa.eu>.

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to:

<https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on October 6, 2021.

Ross Landes, Deputy Director for Regulatory Operations,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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